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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/168,644	10/08/1998	MARK D. CONOVER	2134	2742

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EXAMINER

LEE, RICHARD J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 10/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/168,644

Applicant(s)
Conover

Examiner
Richard Lee

Art Unit
2613



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 19, 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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1. The Examiner wants to point out that the applicant's arguments from the amendment filed July 19, 2002 have been noted and considered, but are deemed moot in view of the following new grounds of rejections. The Declaration of Mark D. Conover filed July 19, 2002 is also acknowledged.

2. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the same reasons as set forth in paragraph (3) of the last Office Action (see Paper no. 12).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowater et al of record (5,404,446) in view of Davis et al of record (5,838,678).

Bowater et al discloses a dual buffer video display system for the display of asynchronous irregular frame rate video data as shown in Figures 1 and 2, and substantially the same method for producing a compressed video bitstream that includes compressed video data for a plurality of frames that specifies a single still image (see Figures 1 and 2, and column 3, lines 19-34, column 4, lines 42-68) as claimed in claim 1, comprising substantially the same fetching the data for the

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still image (see column 3, lines 19-34, column 4, lines 42-68); encoding (see column 4, lines 42-68) the data for the single still image data; storing (i.e., within 4 of Figure 1) the encoded frame data; assembling the compressed video bitstream by appropriately combining data for at least a single copy of the stored frame (i.e., from 4 of Figure 1, see column 3, lines 19-34, column 4, lines 42-68), at least one null frame (see column 2, lines 48-62, column 4, lines 11-41, column 6, line 59 to column 7); and whereby decoding of the compressed video bitstream produces frames of video which produce images that do not appear to pulse visually (i.e., the AVK and circular buffer are used to compensate for the variable arrival rate of the video frames, thereby eliminating viewing distortion and providing images that do not appear to pulse visually, see column 3, line 19 to column 4, line 41).

Bowater does not particularly disclose, though, the followings:

(a) encoding the data for the single still image into data for an intra frame, storing the encoded I frame data, and wherein the assembling the compressed video bitstream combines at least a single copy of the stored I frame as claimed in claim 1;

(b) wherein null frames assembled into the compressed video bitstream also include bitstream stuffing whereby the compressed video bitstream is transmittable at a pre-established bitrate as claimed in claim 5;

(c) the various headers are required for decodability of the compressed video bitstream, the various headers assembled into the compressed video bitstream include a sequence header beginning the compressed video bitstream, at a beginning of group of pictures, a group start code,

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for each encoded frame, a picture start code, and a sequence end code ending the compressed video bitstream as claimed in claims 1, 2 and 6; and

(d) the various headers assembled into the compressed video bitstream include a sequence header beginning the compressed video bitstream; for each encoded frame a picture header, and a picture coding extension; and a sequence end code ending the compressed video bitstream as claimed in claims 3 and 7.

Regarding (a), it is noted that Bowater et al does teach the particular spatial and temporal compression of video signals (see column 4, lines 42-68), and obviously making reference to the well known MPEG video compressions which include the processing of I, P, and B frames. In any event, Davis et al discloses a method and device for preprocessing streams of encoded data to facilitate decoding streams back to back as shown in Figures 2, 3A, 3B, 5, and 6, and teaches the conventional MPEG video compression processings involving I, P, and B frames (see figure 16). Therefore, it would have been obvious to one of ordinary skill in the art, having the Bowater et al and Davis et al references in front of him/her and the general knowledge of intra frame processings within the MPEG video compression standard, would have had no difficulty in providing the intra frame processings as taught by Davis et al within the encoder and decoder of Bowater et al thereby providing the encoding of the data for the single still image into data for an intra frame, storing the encoded I frame data, and wherein the assembling the compressed video bitstream combines at least a single copy of the stored I frame if such intra frame processing were

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not already within the encoding/decoding of Bowater et al for the same well known purposes as claimed.

Regarding (b) to (d), Davis et al teaches the particular use of headers for decodability of compressed video bitstreams (see column 4, lines 48-62) and the conventional assembling of the compressed video bitstream by appropriately combining data for headers such as sequence header, group start code, picture start code, sequence end code, picture header, and picture coding extension (see column 3, line 41 to column 4, line 16), as well as bitstream stuffings whereby the compressed video bitstream may be transmitted at a pre-established bitrate (see Figure 2).

Therefore, it would have been obvious to one of ordinary skill in the art, having the Bowater et al and Davis et al references in front of him/her, would have had no difficulty in providing the required header data for the MPEG encoding/decoding as well as including the bitstream stuffings in the compressed video bitstream as shown in Davis et al for the compressed video data within encoder and decoder of Bowater for the same well known video bit processing and standard compliance purposes as claimed.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bowater et al as applied to claims 1-3 and 5-7 in the above paragraph (4), and further in view of Florencio of record (6,310,919).

The combination of Bowater et al and Davis et al discloses substantially the same method for producing a compressed video bitstream as above, but does not particularly disclose wherein parameters used in encoding the data for the still image produce an amount of data for the I frame

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that approaches, but remains less than, storage capacity of a buffer memory included in a decoder that stores the compressed video bitstream as claimed in claim 4. The particular storage of compressed video bitstreams within a decoder is however old and well recognized in the art, as exemplified by Florencio (see 111 of Figure 1 and column 5, lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art, having the Bowater et al, Davis et al, and Florencio references in front of him/her and the general knowledge of storage buffers within video image decoders, would have had no difficulty in providing the buffer memory within the decoder of Florencio for storage of and decoding of the compressed video bitstream of Bowater et al for the same well known buffer of data purposes as claimed.

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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or faxed to:


(703) 872-9314, (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.


RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

10/9/02

